



Cruchley Sculp.

Barker Sculp.



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The
Key of Knowledge;
or
UNIVERSAL CONJUROR.
Unfolding the mysteries of the Occult sciences,
And being a Guide to the Temple of Wisdom.
By Malcolm Macleod D.D.

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LONDON

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INTRODUCTION.

THAT wonder is the effect of novelty upon ignorance, is a trite but true observation. The imagination of man *must* be entertained; for which purpose the *marvellous* appears to be the best calculated. The human mind dwells with peculiar delight on the history of miracles, and the representation of sublime objects, the eye is never satisfied with seeing, nor the ear with hearing, There is a spirit of curiosity in man that must be satisfied. He cannot devote the whole of his days to dismal reflections; he would rather yield to deception than not be diverted from melancholy. Some of his leisure hours must be wrested from supineness; and there is a chasm between labour and rest, between intense study and solitary retirement, to be filled up with innocent sports and

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pleasant pastimes. The bow must not be always on the bent, and the mind must sometimes be indulged with a slackness in order to recover its natural elasticity.

For this salutary purpose invention has been upon the stretch in all ages, and the superstitious curiosity so visible in man has been amply gratified by the sons of science. Egypt, Greece, and Rome, in their greatest glory, indulged their propensity to play; the tribes of Israel, amidst all their real miracles, imitated the surrounding nations.—Magicians, witches, soothsayers, necromancers, and pseudo prophets, then carried on their tricks and enchantments; and the Queen of *Sheba* travelled to a far country—to puzzle the sapient king with her riddles and hard questions.

In the more modern ages of the world, or in the morn of purest light, or the days of dismal darkness, such pretenders to auguring and divination prevailed. The Gothic ages swarmed with jugglers and impostors.—Designing men possessed of a little learning, and a superficial knowledge of chymistry and the sciences, imposed on the credulous

dulous multitudes, then overwhelmed with the grossest ignorance; wrought wonders at the tombs of saints by *Hocus Pocus** and *Legerdemain*: pontiffs and kings connived and even gloried in the deception. A monarch of our own country imposed on his people a book of *Sports*, to be read in all churches on Sundays, long after the Reformation. Nor has the revival of letters, and the restoration of science, to this day, been adequate to the task of banishing these Gothic amusements.

As now, in this land at least, impostors and jugglers are entirely detached from the church; tricks and deceptions being confined to a few who have turned their minds to the occult arts, we shall make no scruple to present the Public a complete system of the *arcana* of conjuration, in a *Book of Knowledge* far superior to any one before published and which will serve as a *Key* to unfold the curious deceptions in legerdemain, or flight of hand, and

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all

* From *Hoc est corpus meum*, 'This is my body; the words on which the Roman Church grounds her doctrine of *Transubstantiation*.

all the mysteries in the cabinet of curiosity.—In this respect our book will soon be found to supersede all that have gone before. Like the rod of Aaron, it will eat up all the other wands of witches, augers, magicians, fortune-tellers, necromancers, and the whole tribe of conjurors.

By a careful acquaintance with the following treatise, the reader will be enabled to develope the arts and methods used in deception by the sons of the occult science, and not only be guarded against their tricks, but may also, by dint of industry, become an adept himself in all the amusements here delineated. He thereby will be prepared on many occasions, to eke out an evening entertainment with his friends, and pass many a pleasant hour in harmless and scientific diversions.

We have not entirely confined ourselves to what is emphatically called the Mysterious Arts; as the reader will soon discover, by observing the chapters of *Aerostation*, *Paradoxes*, *Arithmetical Pastimes*, *Curious Problems*, *Astrological and Astronomical Amusements*, *Lives of Magicians*, *Philosophical Experiments*, &c. from the most approved authorities, ancient and modern.

London

London and its environs have long been peopled with sharpers, who often but too successfully entrap the unwary stranger, by the dexterous management of cards and dice; the peruser of the following pages will soon see all their tricks laid open to his view, and so disappoint such harpies of their anticipated prey: for where is the man with his eyes open will run into danger? Where is the swindler who will dare to impose on one who, though too innocent ever to be his companion, has in his possession all the knowledge of the arts and mysteries of deception?

A general knowledge of these arts will act like the effluvia of the broiled fish in the Apocrypha, by dispelling the evil spirits, who are perpetually surrounding such as they would devour. Apprise them that you are in the secret, and they will, instead of pilfering your purse, steal away from your presence without ceremony.

In a word—our *Key of Knowledge* is calculated to open the cabinet of the hidden arts, to expose imposture, to administer pleasure to the imagination, and afford every kind of entertainment. We

will no longer detain the inquisitive reader from his desired happiness, but attend him into the temple, to exhibit all its rarities.

Legerdemain and magic here behold —
From Egypt's augurs in the days of old ;
Unmask'd, the *arcana* of each curious art,
We to the sons of genius thus impart.
The sciences in comely order stand,
Obedient to our nod or magic wand.—
The temple opens to present a view
Of curious mysteries, both old and new.
These sciences accord, and arts unite,
Striving to joiz true profit with delight.

THE KEY
OF
KNOWLEDGE.

CHAP. I.

PHILOSOPHICAL AND DIVERTING AMUSE-
MENTS.

The Magnet.

THE discovery of the *magnet* has certainly proved of the most essential benefit to mankind, and appears to have been entirely unknown to the ancients.—It has guided the mariner across the ocean—opened a new world, and united nations the most distant from each other on the face of the globe. By its wonderful attraction many experiments have been made in philosophy; but our design is only to select those which afford entertainment.

To make Iron swim.

Place a pail of water in the midst of the company; cast in a piece of iron or steel, saying—“Ladies and gentlemen, you now behold this sink to the bottom: how shall we make it swim on the surface?” Attention will naturally hold them mute as

as the poet says. Meanwhile you prepare your work by a mock incantation (uttering some hard word—*abracadabra*, or the like); then waving an iron rod, touched by the loadstone, over the water, the piece of steel will ascend to the surface, and you may guide it round and round at pleasure.

An artist, a few years ago, amused the metropolis with a curious operation performed upon the same principle, by which he obtained no inconsiderable emolument, at the Haymarket:

A large china or marble basin being placed in the centre of the room, he put into the water which it contained, a small artificial swan, composed of cork. Around the edge of the basin were painted the letters of the alphabet.

“Here is the little learned swan, ladies.—I will lay you an even wager, gentleman—not exceeding one pound one—or some such trifle—that”——
“What?”——“that she will spell the name of a person or the name of a town—as well—as any of the company!”

Some of the company naturally, at least will try the experiment by proposing a name; when the swan, at the fiat of the operator, will gradually swim round, and single out the letters that compose the word required, to the no small astonishment of the spectators, who are generally inclined further to discover the learning of the little swan.

The whole of this is performed by a simple apparatus on the principle of magnetism, thus: an iron or steel pin is fixed in the internal part of the swan, and the performer, having a magnet in his docket, as he moves round, draws his scholar at pleasure to each letter required.

N. B. The performer himself must be skilled in orthography

orthography, or have the word given him in writing by the proposer.

To cause a curious Dance of Turkies.

A few years ago an Italian acquired an ample fortune by exhibiting a number of dancing turkies, and by a very simple process entertained the people of this kingdom for several months.

In the centre of a circular gallery crowded with spectators he exhibited a platform railed round, on which he placed about a dozen of turkies. These at first appeared quite peaceable, as feeding on corn, which he cast among them. Striking up slow music, the birds began to move without much agitation. As the musician made a transition to a quicker note, the turkies began to dance rather faster—then faster: as the music advanced—they arose, in agitation—till at last they flew into strange vagaries, and in a manner the most eccentric that can be imagined. This threw, very naturally the whole company into a violent fit of laughter during the chaotic dance, which continued a considerable time. By degrees they sunk into their original passive state, and resumed their feeding: till the performer repeated his music, and gradually raised them again to an equal fit of extravagance.

All this, as we said, was executed by a simple process. Beneath the platform he had placed a fire of charcoal, which as it arose in heat, by being secretly blown upon, warmed the stage, composed of a thin iron plate, and by degrees raised the turkies to a fit of distraction.

The electrical Spider.

Take a bit of burnt cork, as big as a pea; form it in the shape of a spider, and make it legs with threads

threads of hemp. Put a grain of lead in the cork, to give it some weight; then hang this artificial spider by a bit of grey sewing silk (that is not twisted) between two bodies, the one electrified and the other not; or between two bodies endowed with different electricities; it will go and come between these two bodies, and the motion of the legs will as plainly appear, as if it was a real spider.

The philosophical Tree.

Take of the finest silver, one ounce; aquafortis and mercury, of each four ounces. In this dissolve your silver, and after you have put over it a pint of water, close the phial in which your ingredients are put, and you will behold a beautiful branching tree, which every day will encrease in its growth.

To dapple a Horse.

In the spring of the year take the large buds of young oak trees; mix them with the horse's provender, and give it him three or four times to eat, and he will soon assume a dapple hue; and during a whole year will continue so. The buds of young elm trees will have the same effect.

To make a Stone, which being wetted, produce Fire.

Take quick-lime, saltpetre, tutea-Alexandrina, and calamint, of equal quantities; live-sulphur and camphire, of each two parts: beat and fist them through a fine sieve; then put the powder in a fine linen cloth, tie it close, put it in a crucible, cover it with another crucible, mouth to mouth; bind and lute them well together, then set them in the sun to dry. When dry, the powder will be yellow.

Then

Then put the crucible in a potter's furnace, and when cold, again take it out, and you will find the powder altered into the substance of a stone.

When you have occasion to light a fire or candle, wet part of the stone with a little water, or your own spittle, and it will instantly flame ; and when you have lighted, blow it out again, as you would a candle.

To put a Candle under water alight, without its being extinguished.

Take a glass, and, fastening a small bit of wood across the mouth, stick thereon a piece of candle lighted ; and with a steady hand, convey the glass to the surface of the water ; then push it carefully down, and you may see the candle burn under the water, and you may bring it up again alight.

In the same manner you may put a handkerchief rolled tight together, and it will not be wet.

The principal art in performing this trick, consists in the nicety of bringing the mouth of the glass exactly level with the surface of the water ; for if you put it the least on one side, the water will rush in, and consequently put out the candle, or, in the other case, wet the handkerchief ; so that a nice eye and steady hand are necessarily requisite for this performance.

This trick, simple as it is, may serve in some degree, to elucidate that contrivance called the *diving-bell* ; as it is certainly done upon the same principle.

A charm to drive away Spirits, and prevent a House from being injured by a Tempest ; or the Paracelsian charm.

Hang upon the four corners of the house, either, or all of the following sentences—only in Latin ;

1. *Omnis*

- 1 *Omnis spiritus laudet Dominum.* Psalm cl.
‘ All that has breath, praise the Lord.’
- 2 *Mosén habent et prophetas.* Luke xvi.
‘ They have Moses and the prophets.’
- 3 *Exurgat Deus, et dissipentur innimici ejus,* Psalm lxiiv.
‘ Let God arise, and let all his enemies be scattered.’

A curious way to discover a Thief, by which many a Half-crown may be saved, without consulting a Conjuror.

Turn your face to the east, and make a cross upon a looking-glass with oil of olives, and under the cross write these words, “SAINT HELEN.”

Then a child that is innocent and a chaste virgin, born in wedlock, and not base begotten, of the age of ten years, must take the glass in her hand, whilst you behind her back, kneeling, must thrice repeat these words: “ I beseech thee, my Lady Saint Helen, mother of King Constantine, which didst find the cross whereupon Christ died; by that holy devotion and invention of the cross, and by the same cross, and by the joy which thou conceivedst at the finding thereof, and by the love which thou bearest to thy son Constantine, and by the great goodness which thou dost always use; that thou shew me in this crystal, i. e. looking-glass whatsoever I ask, or desire to know. Amen.”

And when the child sees the angel in the glass, demand what you will, and the angel will return a proper answer. *Mem.* This must be done just as the sun is rising, and when the weather is fair and clear.

Three

Three charms against the Falling Sickness.

Drink in the night, at a spring, water out of a skull of one that has been slain, saying :

This cup I borrow from the purpled plain,
And for my cure thus drink th' blood o'th' slain
Otherwise, eat a pig, killed with a knife that
flew a man.

Or, repeat the following verse three times :

Ananizapata smiteth death,
Whiles harm intendeth he ;
This word, Ananizapata say,
And death shall captive be.
Ananizapat, O of God,
Have mercy upon me !!!

A curious charm for the Ague.

Write the Arabic word Abracadabra as follows,
and wear the paper about your neck ;

Abracadabra
bracadabra
racadabra
acadabra
cadabra
adabra
dabra
abra
bra
ra
a

To prepare a Room in such a Manner that any Person, entering with a lighted Candle, will imagine himself surrounded with Fire.

Take a pretty large quantity of brandy; put it in a bowl, and set it on the fire (the fire must be slow) to receive heat enough to boil it gently up: into the brandy put some camphire cut in little bits which will soon dissolve; when all dissolved close both windows and doors, and let the brandy boil and evaporate. By this the room will be filled with subtle spirits, which, as soon as the candle is brought into the room, will be lighted, and seem as if all was on fire. Dissolve some perfume in the brandy, and the flame will be attended with an agreeable smell.

To spot a white Horse with black; a curious Receipt for Horse Jockies,

Take litharge three ounces, and quick-lime six ounces; beat them fine and mix them together: put the mixture in a pan, and pour a sharp lye over it; then boil it, and you will have a fat substance at top; which take and anoint the horse in such places as you design to be black, and it will turn that colour immediately.

It has the same effect in changing hair that is red into black; with only this difference, you are to take an equal quantity of lime and litharge, and instead of boiling it with lye, take only fresh water what swims at the top is fit for use, and will answer your expectation. And what hairs you anoint at night will be black next morning.

To compose a Liquid imitating the Colour of Blood, which furnishes the entertaining means of discovering to a Company the Person who is most amorous,

Cut in several small chips a piece of Fernambuco wood; put them in a large glaſs full of good white-wine vinegar; add to it a bit of common white alum, of the size of a ſmall nut; make the whole ſimmer over a gentle fire for half an hour, in a new earthen pot or pipkin, taking care to ſtir this composition, in order to prevent it from boiling over, while on the fire.

When it is taken from the fire, let it cool, and strain it through a piece of linen; then pour it into a bottle of clear glaſs.

Having thus your liquid ready prepared, provide yourself with a tube of clear glaſs, about fifteen or sixteen inches long, about the thickness of a wax candle, taking care to have ſtopt it at one end.

When you present yourself before a company in order to perform this experiment, you are to carry the tube in your pocket; and holding the phial in your hand, you are to ſay—"Ladies and gentlemen, here is a phial containing liquid blood; I hope to make you know by it the perſon most addicted to love in this company.

"Please to obſerve that I pour a little of the liquor into this tube. - As you might imagine that this liquor, like that put in thermometers, may rise by dilating itſelf when exposed to heat, and conſequently the pressure of the hand will ſuffice to produce this effect, and it will condense by rarefying when exposed to cold, I affiſe you, ladies and gentlemen, it is not the caſe. This liquor diſfers intirely from that put in thermometers, and

you may be easily convinced of it, before I try the experiment I promised you. You may put it near the heat of a candle—and even that of a fire, without *any* degree of heat making it rise in the least. But, by a peculiar and sympathetic virtue, you will see it boil, when the tube is touched by a person of an amorous disposition."

Then take out of your pocket a little pot ash; keep it in the interior part of the hand that holds the tube at the top, as if you wanted to keep it shut, and as the person you wish to pass for the most amorous in the company takes the lowest part of the tube in his hand, you are to let fall dexterously a little pot-ash in it, and you will behold the liquor boil and rise to the top of the tube to the great astonishment of the spectators.

The artificial Bird, which sings any Air the Company desires.

This bird is perched on a bottle, and sings without any preliminary exercise, not excepting those which the most cunning musician can compose extempore. He also sings equally correct changes to different bottles, and on different tables. The breath from his bill blows out a candle, and lights it speedily after; or he will sing in your hand, without deriving any aid from a bottle.

Behind the curtain which covers part of the partition, are placed two small speaking trumpets, which the confederate employs to convey his voice, according to the position of the table and bottle, to different parts. The confederate has in his mouth the inner skin of an onion, by which he imitates the notes of a bird, in the same manner as the famous Rossignol, follows the air given to the

the musicians, either by memory or the notes furnished them. If the air be too difficult for the confederate and musicians to execute extempore—you acquaint the company that, to render the trick more astonishing, you will begin with some well known air, and then suddenly fall into the air given to be executed, as it to surprise the bird, and add to the difficulty of executing what is laid before.

Some of the musicians avail themselves of this moment to throw a rapid eye over the difficulty proposed, and take care not to begin till they are sufficiently studied in it.

The bird has in its body a little double bellows, and a little moving pin between its legs, which puts the bellows in motion—by the levers which are under the cloth, when the confederate draws the wire, which is hidden in the feet of the table.

By the same means the bellows are moved to blowout the candle, and it proves to the spectators, that the notes are really formed in the throat of the bird, because the air comes through its bill.

When you take the bird in your own hand you put the bellows in motion with your thumb; and the wind in the same manner extinguishing the candle, persuades the company that the bird sings without the aid of any machinery hidden in the table. The candle being only a moment extinguished, and the wick still warm, is lighted instantly by touching the bill of the bird which for that purpose has been furnished with a little phosphorus that operates as a match.

CHAP. II.

IN our second chapter we propose to exhibit the various curious tricks performed by cards, and which will appear to the reader by far the most innocent use that these painted pasteboards are appropriated to.

Few there are who make card-playing merely an amusement; and though some people may appear regardless of their wealth, and care not what they lose, yet a certain solicitude prevails with every one who plays. The minds of many who employ their time in gaming are upon the rack of anxiety. Sharpers and cheats perpetually study the cards, to cozen the unwary countryman out of his money, and too often prove successful in the ruin of inexperienced youth*.

The Art of Fortune-telling by Cards:

Take a pack of cards, and make yourself which queen you please. Lay them out on a table, nine in a row, and wherever you find yourself placed, count nine cards every way, making yourself one, and then you will see what card you tell to; and whatever that is, will happen to you. If the two red tens are by you, it is a sign of marriage; the ace of diamonds is a ring; the ace of hearts is your house;

* The Reader is referred, for a striking instance of this kind, to a shilling book, entitled "A Fortnight's Ramble through London," in which he will see an ample display, and a happy exposure of the frauds and tricks of sharpers.

house ; the ace of clubs is a letter ; the ace of spades is death, spite, or quarrelling ; the ten of diamonds is a journey ; the three of hearts is a kiss ; the three of spades denotes tears ; the ten of spades sickness ; the nine of spades, a disappointment ; the nine of clubs, a merry making ; the nine of hearts, feasting ; the ten of clubs, going by water ; the ten of hearts, some place of amusement ; the five of hearts, a present ; the five of clubs, a bundle ; the six of spades, a child ; the seven of spades, a remove ; the three of clubs, fighting ; the eight of clubs, confusion ; the eight of spades, a road-way ; the four of clubs, a strange bed ; the nine of diamonds, business ; the five of diamonds, a settlement ; the five of spades, a surprise ; the two red eights, new cloathes ; the three of diamonds, speaking with a friend ; the four of spades, a sick-bed ; the seven of clubs, a prison ; the two of spades, a false friend ; the four of hearts, a marriage-bed.

When several diamonds come together, it is a sign of money ; several hearts, love ; several clubs, drink ; and several spades, vexation.

If a married woman lays the cards, she must make her husband the king of the same suit of which she is queen ; but if a single woman tries it, she may make her sweetheart what king she likes. The knaves of the same suit are the man's thoughts ; so you may know what they are thinking of, by telling nine cards from where they are placed making them one, and if any one chuses to try if she shall have her wish, let her shuffle the cards well (as she must also when she tells her fortune, wishing all the time for some one thing : She must then cut them once and minding what

card

card she cuts, shuffle them again, and then deal them out into three parcels ; which done, look over every parcel, and if the card you cut comes next yourself, or next the ace of hearts, you will have your wish ; but if the nine of spades is next you will not, for that is a disappointment. However, you may try it three times.

By the above method any young woman may keep half a crown in her pocket without exposing herself to the pretended conjuror on Holy-well Mount, or any other impollor.

For a person to chuse a Card, you not being supposed to know what it is ; and then for the Person to hold the Cards between his Finger and Thumb to strike them all out of his Hand except the very Card he had taken.

This is called the nerve trick, and thus performed :—having previously looked at a card, bid the person draw one, taking care to shove that to the one you know. When he has looked at it, let him put it at the bottom ; let him shuffle the cards ; then you look at them again ; and finding the card ; place it at the bottom ; then cut them in half, give the person that part which contains his chosen card at the bottom, to lock between his finger and thumb, just at the corner ; bid him pinch them as tight as he can ; then striking them pretty sharp, they will all fall to the ground, except the bottom one, which is the chosen card.

This trick, if performed well, is curious, and even astonishing. It may be accounted for from the retentive nature of the nerves, when any thing is attempted to be taken by force or surprise.

How to put a Card in and out of an Egg.

You must prepare two sticks both of a size, and as much alike as possible. One of them must be so constructed as to conceal a card in the middle, by being hollowed quite through, having an artificial spring to throw the card into the egg at pleasure. The apparatus being thus prepared, take and peel any card in the pack which you please, and rolling it up convey it into your false stick: there let it remain till you have proceeded farther. Then take a pack of cards, and let any person draw one; but be sure that it be of the same sort of card that you have in the tube. Then let him put it in the pack again, and when you are shuffling them, let that card which was drawn fall into your lap; then calling for some eggs, bid the party, or any one of the company, chuse one of them; and when they have chosen one, ask them if there be any thing in it, and they will naturally answer in the negative: then take the egg in your left hand, and the false stick in your right, and so break the egg with your stick; then let the spring go; and the card will appear in the egg; and during the amazement of the spectators, conceal that stick and produce the true one on the table.

The dancing Card.

One of the company is desired to draw a card which is afterwards mixed with the pack, and is commanded to appear on the wall. It accordingly obeys, advancing as ordered, describing a declined line from right to left. At the top of the room it disappears; and instantly is seen moving in a horizontal direction.

This operation, though simple, has a very pleasing

sing effect on the spectators, and is thus performed —Cause any person to draw a card which you know by the touch, being larger than the rest, and which by artifice you will force upon him. After having shuffled them, you withdraw it from the pack, to shew the company it is not there; and when you order it to appear on the wall, the confederate dexterously draws a thread, at the end of which is fastened a similar card, which comes from behind a glass, and this card is fastened by very small loops of silk to another thread full stretched, along which the card runs and performs its course. *Sicut parva componere magnus*, it resembles the rope across the Seine, by which the ferry-boat of the invalids is conducted.

The Card nailed to the Wall by a Pistol shot.

A card is desired to be drawn; and the person who chose it is desired to tear off a corner and keep it, that he may know the card: the card so torn is burnt to cinders; and a pistol is charged with gunpowder, with which the ashes of the card are mixed. Instead of a ball, a nail is put into the barrel, which is marked by some of the company. The pack of cards is then thrown up in the air, the pistol is fired, and the burnt card appears nailed against the wall: the bit of the corner which was torn off, is then compared with it, and is found exactly to fit, and the nail which fastens it to the wall is recognised by the person who marked it.—The operation is as follows.

When the performer sees that a corner has been torn from the chosen card, he retires and makes a similar tear on a like card. Returning on the stage, he asks for the chosen card, and passes it to

the

the bottom of the pack, and substitutes expertly in the place, the card he has prepared, which he burns instead of the first.

When the pistol is loaded, he takes it in his hand, under the pretence of shewing how to direct it, &c. He avails himself of this opportunity to open a hole in the barrel near the touch hole, through which the nail falls by its own weight into his hand. Having shut this carefully, he requests some one of the company to put more powder and wadding into the pistol. While that is doing, he carries the nail and card to his confederate, who quickly nails the card to a piece of square wood, which stops hermetically a space left open in the partition, and in the tapestry, similar to the rest of the room, and by which means, when the nailed card is put in, it is not perceived. The piece of tapestry which covers it, is nicely fastened on the one end with two pins, and to the other a thread is fastened, one end of which the confederate holds in his hand. As soon as the report of the pistol is heard, the confederate draws his thread, by which means the piece of tapestry falls behind a glass—the same card that was marked appears, and with the nail that was put into the pistol.

N. B. After the pistol has been charged with powder, a tin tube may be slipped upon the charge, into which the nail being rammed along with the wadding, in inclining it a little in presenting it to one of the spectators to fire, the tube and contents will fall into the performer's hand to convey to his confederate. If any one suspects that the nail has been stolen out of the pistol, you persist in the contrary, and beg the company at the next exhibition to be further convinced. You are then to shew a pistol, which you take to pieces to shew that

that all is fair without any preparation——you charge it with a nail, which is marked by some person in confederacy with you, or you shew it to many people to avoid being marked. In this case the card is nailed with another nail, but to to persuade the company that it is the same, you boldly assert that the nail was marked by several persons, and you request the spectators to view it and be convinced.—This trick never fails to meet universal applause, as from its complex operation, it cannot easily be conceived.

To make a Card jump out of the Pack, and run on the Table.

This device is marvellous if well executed, and is thus performed. Let any one of the company draw a card from the pack, no matter which, and then return it to the pack, but so as you know where to find it at pleasure; then take a piece of wax and put it under the thumb nail of your right hand, and then fasten a hair to your thumb, and the other end of the hair to the card; then spread the pack of cards open on the table, saying,—” If you are a pure virgin, the card will jump out of the pack;” then by your words or charms, seem to make it jump on the table.

The Cards named by a Person blindfold.

A spectator in the boxes draws the cards out of the pack; a woman on the stage blind-folded, to prevent her perceiving signals, names all the cards as they are drawn, without mistaking their number, suit, or description,

The cards are arranged in such a manner, that the performer understands their sequence; when he has had a card drawn, he apparently mixes them

them, and as soon as they have been cut, he makes the pass to place underneath the card that was immediately under the one chosen, which, as soon as he sees, he communicates to the woman, at the moment that he promises to take all precautions that she should know nothing: he says he will not speak a word whilst she names the cards, and he desires the person who holds the cards to shew them to the company without calling the cards, by saying—"This is such a card, or such another." It is by the last phrase that he craftily names the uppermost card; the woman hears him and names the cards in their sequence, having previously known the arrangement of the pack.

Thus, for example, if you convey the hint that the 15th is uppermost, she names the 16th, 17th, &c. As soon as she has gone through the whole pack of cards, the husband, who during the time has been silent, now speaks, and requests the persons who chose them, to ask which are the others that remain to be named. The woman is apprised by the question that there are no more, and answers accordingly.

N B. As soon as the spectator has chosen the pack of cards, you must desire him to mix them well together; without this precaution he would perceive that they are demanded in the order they lie and would conclude, with truth, that this arrangement served to communicate intelligence.

How to tell what Card one thinks on, and how to convey it into a Nut-shell.

Take a nut and burn a hole through the side, or the top, or the top of the shell, and also through the kernel, with a hot bodkin; or bore it with an

awl and pick out the kernel with a needle, so as the same may be as wide as the hole in the shell ; then write the name of the card on a bit of paper, roll it up hard, put it into the nut-shell, stop the hole up with wax, and rub it over with a little dust and it will not be seen. Then let some by-stander draw a card, whilst you tell him it is no matter what card he draws. Here by dexterously shuffling, and cleanly handling the cards, you will proffer him the card whose name is enrolled in the shell. Then take another nut and fill it with ink, stop the aperture with wax, and give it to a boy, desiring him to crack it, and when he finds the ink come out of his mouth, it will cause much merriment in the spectators.

To tell what Card a person pitches on, without seeing the Card till you find it in the pack.

As you hold the pack in your hand, let any one draw from it which card he pleases and look at it ; you then shut your eyes, receive it from the company, and return it to the pack. Then shuffle the cards till you know it is come to the bottom again ; then putting the cards behind, make it appear as if you was shuffling them again ; but let your shuffling be only in this manner :—take off the uppermost card and put it at the bottom, counting to yourself how many you take off : then bring the cards forth and hold them with their faces towards you ; then take off one by one, privately counting the number, and smell to them, as if you found it out by your nose, till you come to the right card ; then produce it, saying—“ This is it,” and they will wonder how you found it out.

As

As very much, in all these and such operations depends upon a clean hand at shuffling the cards, it will be necessary for the learner to practise often in private, previous to his performance in public.

A person with a hard hand and stiff joints should never think of playing deception with the cards, as clumsy fingers will not do. In shewing tricks with cards, the principal point consists in shuffling them nimbly, so that your hand may exceed the motions of every eye. You must always keep one certain card either at the bottom or in some known place of the pack, four or five cards from the bottom; for by this you may appear to work wonders; since it is easy for you to see or take notice of a card, which, though you be perceived to do it, will not be suspected if you use them well together by the following method:

In shuffling let the bottom card be always a little before, or a little behind all the rest of the cards; put it a little beyond all the rest before, right over your forefinger, or else, which is better, a little behind all the rest, so as the little finger of the left hand may flip up and meet with it at the first. Shuffle as thick as you can, and at last throw upon the board the bottom card, with as many more as you would preserve for any purpose, a little before or a little behind the rest, and be sure to let your fore finger (if the pack be laid behind) always creep up to meet with the bottom card, and when you feel it, you may there hold it till you have shuffled over again; which being done, the card that was first at the bottom will come there again. Thus you may shuffle them before the faces of the company, and yet leave the noted card at the bottom,

Strive to be very perfect in your shuffling, and having once arrived at perfection at the art, you

may perform wonders, and do almost what you please; for whatever pack you make, though it is ten, twelve, or twenty cards, you may still keep it next the bottom, and yet shuffle them often to please the curious.

How to let twenty Gentlemen draw twenty Cards, and to make one Card every man's Card.

Take a pack of cards and let any gentleman draw one, then let him put it in the pack again, but be sure where to find it at pleasure; then shuffle the cards again as before taught; then let another gentleman draw a card, but be sure you let him draw no other than that before drawn, and so do to what number of times you think proper; when you have so done, let another gentleman draw another card, but not the same, and return that card into the pack, where you have kept the other card, and shuffle them till you have brought both cards together, then shewing the last card to the company, the other will discover the trick.

How to change a pack of Cards into all manner of Pictures.

On the backs of one half the pack paint what figures you please; then paint the other half on the sides which are spotted, in the same manner you did the first half; so between them both you will have a complete pack of all pictures, and when you perform this trick you must shew the cards but half way.

Practices commonly made use of by professional players, known by the appellation of Black-legs.

Handling the cards—So called from the cards being secured in the palm of the hand.—The per-
son

son who practises this at cribbage generally takes care to get two fives, with any other two cards, placing one of the two ordinary cards at the top, next to it one five, then the other ordinary card, and under it the other five. These four cards so placed he secures in the palm of his hand, while he desires his adversary to shuffle the cards; and being very generous, also tells his opponent to cut them. When this is done, he puts his hand which contains the four cards upon that part of the pack which is to be uppermost, and then leaves the cards on the same; consequently when he deals the two fives will fall to his own hand of cards, by which means when a person who can handle deals he is pretty sure of two or more fives.

Weaving—Is securing one or more cards upon the knee, under the table you play at, and therefore any person who practices this art has always the choice of exchanging any of the cards he thinks proper for those he thus secured; which is the same as suffering your adversary to have the choice of six or seven cards, while you have only your proper number.

Garretting—Is so called from the practice of securing the cards either under your hat or behind the head, and taking an opportunity of placing them in the room of inferior cards.

Slipping—Is performed in various ways, all of which tend to put the same cards at the top again which have been cut off and ought to be put underneath.

Walking the pegs—Means either putting your own pegs forward or those of your adversary back, as may best suit your purpose, and it is always executed whilst you are laying out the cards for crib.

Slipping the fives—Is first to mark the cards in

such a manner as to know them, and whenever you observe one coming to your adversary you give him the next card under in lieu of it.

Cut cards—Are a pack of cards regularly prepared, having the sixes, sevens, eights, and nines, all cut something shorter, and all the fives and all the tens cut somewhat narrower. By this means if you want any particular card to start, you cut accordingly,

Cards taken out of the pack—This very common practice makes your adversary play to a very great disadvantage.

The old gentleman—Is sometimes called a brief card, and is one made by the card maker on purpose, being a little larger than any of the rest.

Bridging the cards—Is done when you wish for any particular card to start, and you can by any means find such card and place it on the top of the pack; then by bending the cards upward and downwards, something like the arch of a bridge, you will perceive where to cut for the card you want.

There are several other technical terms used by sharpers, such as *giving the office*, or any other person looking over the hand and giving the hint to the other parties by some signal; *saddling the cards*, which is bending the sixes, sevens, eights, and nines in the middle lengthways, with the sides downwards; *dealing the fives from the bottom*; *new cards*, which have been opened and made up again, and *marked cards*, which the adept carries in his pocket for the purpose of cheating.

CHAP. III.

OF AEROSTATION, AND GEOGRAPHICAL
PARADOXES, &c.

AEROSTATION is a newly discovered art entirely unknown to the ancients, and furnishes a curious article in the Encyclopædia. It is an ascension to the regions of the air, by means of an air-balloon, and a rapid flying on the wings of the wind from one place to another. For the invention we are beholden to a French artist, who surprised his countrymen, and demonstrated that what had been the speculation of the philosopher was practicable, and what had for ages been deemed impossible, was capable of being performed upon the most simple principle.

On the first of December, in the year 1783. a balloon was let off from the Thuilleries at Paris, under the direction of Messrs. Charles and Roberts. It had suspended to it a basket covered with blue silk and paper finely gilt, in which these gentlemen mounted into the air, amidst many thousands of all ranks and conditions, among whom were several foreign princes and French nobility. These philosophers in their ascension carried with them flags of various colours, with which they saluted the marvelling multitude. When they arrived at the height which they meant to reach, they dropped a flag, as agreed upon, and then steered in a horizontal track over the Fauxbourg St. Honore, saluting with their flags the spectators as they glided along. They landed about twenty miles distant from

from the place of their embarkation, being followed by the Duke de Chartres, and several of the French and English nobility and gentry, who came in almost as they descended. Mr. Charles now after throwing out some ballast to lighten the machine, rose alone to the almost incredible height of 15026 toises, or 3052 yards perpendicular, in about ten minutes.

The account which Mr. Charles gave of his observations is; that he lost sight of the earth and saw nothing but a wide expanse of fine æther. — that the barometer fell from 28 to 18, and the thermometer from 7 above freezing to 5 below it. He descended about five miles from the place of his re-ascension, near the house of an English gentleman, where he slept that night, and was returned to town by a nobleman the next day in his own carriage, amidst the applauses of the people.

The balloon was composed of red and straw coloured taffeta, pierced alternately so as to appear meridional lines upon a terrestrial globe. The upper hemisphere was covered with a netting, surrounded with a hoop at the bottom, to which the car was suspended; so that the elastic pressure of the inflammable air was equally repressed by all the meshes of the net over the balloon.

The account of this being received by Dr. Lettsom in London, was published; and several balloons were let off, without the ascension of any person, until the famous Lunardi arose from the Artillery ground at London, in one of about 30 feet in diameter, in the sight of many thousands of amazed spectators, on the 15th of September, 1784 when after manœuvring over the metropolis at the height of above three miles, as he asserts in his pamphlet, he pursued a northern direction, and descended.

descended at the distance of about twenty miles from London.

The next day Lunardi entered the city in triumph, and dined with the Lord Mayor and the Judges at the Sessions-House in the Old Bailey.

Mr. Lunardi, in the above-mentioned publication declares that London appeared to him as the drawing of it upon an extensive scale, and that St. Paul's seemed a bee-hive. That the fields surrounding the suburbs were like the sketches of a land-measurer, the hedges resembling small lines drawn between the plats, and that the river Thames was diminished to a crooked line drawn by a school-boy with a gross pen. He says that from that exalted eminence he beheld the country round to an incredible distance; even no less, according to his judgment, than two hundred miles.

Lunardi, whilst at table with the judges, was addressed by one of them in the following manner: "Sir, as you was the innocent cause of the death of a young woman yesterday, by being frightened into a fit by the fall of one of your oars from your sublime elevation; to your ascension, I verily think, saved the life of a young man, then upon trial in this court upon a capital indictment. The jury had just withdrawn to consider their verdict when a sudden and loud alarm was given that Lunardi was mounted in the air in his aerial car:—curiosity prevailed over decency—the court was emptied—we all arose as high as we could go, to see the wonder; but not till the jury returned and pronounced the prisoner not guilty. So that, Sir, the sarcastical line of Mr. Pope—

And hang the wretch that jurymen may dine.

may

may with some propriety be altered to—Save the man that we may see Lunardi."

On the 16th of October in the same year, 1784 Mr. Blanchard and another gentleman ascended in another balloon from Little Chelsea, in the sight of an incredible crowd. After travelling about twenty miles, Blanchard set down the gentleman, re-ascended, and landed safely at the distance of about seventy miles from the metropolis.

Since that time two gentleman crossed the channel from Dover to Calais in an air balloon and most of the towns in Great Britain have been favoured by the aerial performances of Lunardi, and others.

To make an Air Balloon

Take a piece of taffeta or thin silk, and sew it into the form intended, leaving a small orifice for the admission of the inflammable air. The taffeta or silk, with all the seams, must be strongly gummed several times over, in order effectually to keep out common air and prevent the artificial air from transpiring. The form most commodious and proper in which the balloon should be constructed, is orbical or round, as that will greatly contribute to its swiftness and steadiness in motion, as well as its progress in elevation.

The method of filling your balloon, when properly prepared, is as follows :

Take a glass bottle or vessel, the size according to the quantity of inflammable air required, or in proportion to the magnitude of your machine, put into it a quantity of oil of vitriol, with some iron filings or old nails then pour on some clear water, and it will soon begin to ferment, and, if not prevented by stopping it close, ascend to a considerable height

height in smoke. This must be conveyed into the balloon by means of a glass tube or crane, which must be well secured at each end, and as the fermentation encreases, the balloon will fill. When you have got a sufficiency of the air you must draw the neck tight with a string fixed on purpose, and from this moment it becomes a so much lighter body that it would ascend immediately, unless restrained by a proportionate ballance.

Before you begin to inject the inflammable air, make the parts again secure with gum, or some other glutinous matter; and after all, you may, if you please, gild over the whole, which in its flight will give a grand appearance. This when unconfined will float in the air for some time, and continue to do so until the inflammable air finds a vent, when it will gradually descend.

One Arnold constructed an aerial machine in an inclosed ground in St. George's Fields, proposing in his public bills to take a trip to Paris in the night, having his balloon superbly illuminated. He changed his mind and attempted to fly in the day, having a pendant parachute at the bottom of his car, in which a man was to rise to the height of a mile, and then to leave his situation and company and descend perpendicular into the fields.

It was in July, 1785, when the proposed attempt was made, in the sight of a vast multitude. Long the spectators waited with eager expectation; at length, the balloon was loosed—it arose as high as the fence—the man in the parachute jumped out—Arnold tumbled from the car—and his son alone ascended. He hung by the cordage, and so suddenly arose that he had no time to follow the example of his company. The machine, with the swiftness of the lightning's flash, reached above the clouds

clouds : the balloon bursted, and terror seized the beholders. However, the machine descended with less precipitation than was feared, and, taking its direction eastward, dropped in the Thames, where young Arnold was saved by a waterman near Lime house.

The exhibition of air balloons has been discontinued in England for some years. The invention at yet has only afforded amusement to the marvelling million, and, till it can be stamped with utility the public appear inclined to rest satisfied without the flight, however curious. It was above a century after the discovery of gunpowder, before it was used in battles or sieges ; but it is too apparent now that, according to Milton, it was originally a diabolical invention, calculated for destruction. The balloon in time may be so much improved as to prove the vehicle of intrigues, the passage of spies : and the speedy conveyance of dispatches between states and kingdoms.

*Select GEOGRAPHICAL PARADOXES, with
their SOLUTIONS.*

A PARADOX is an apparent falsity, but a real truth ; it is that which, to an unthinking person, seems absurd, impossible, but to a thoughtful man is plain, and as true as any problem in Euclid.

This species of entertainment in science is well calculated to beget an ardent thirst in the learner for knowledge, and to prompt a train of thinking, which in its progress often meets with new discoveries. We shall, therefore, in this place select a few from a work of genius on Geography, and insert

their explanations which are there omitted by the author.

Paradox 1. There are two remarkable places on the globe of the earth, in which there is only one day and one night throughout the whole year.

Answer. These places are the two poles ; for to the north pole the sun rises on the 10th of March above the horizon, and disappears not till the 12th of September. The dawn of this prolonged day commences about the 18th of January, and the twilight after sun-set continues till the beginning of November. The south pole is exactly the contrary.

Paradox 2. There are some places on the earth, in which it is neither day nor night, at a certain time of the year, for the space of 24 hours.

Answer. If by neither day nor night be meant twilight, it may be any climate of the frigid zones : but if it be understood that the sun neither rises nor sets for 24 hours, the places must be 90 degrees distant from the sun : thus, if the sun be in the equator, then the poles are the places ; for at these times the sun circuits about their horizon for 24 hours, half above and half under it, hence there and then it is neither day nor night.

Paradox 3. There is a certain place of the earth, in which, should two men chance to meet, the one would stand upright on the soles of the other's feet ; neither of them should feel the other's weight, and yet both retain their natural posture,

Answer. This supposes a hole bored through the earth to the opposite point, or the antipodes and one man descended towards the centre at one end of the hole, and another descended at the other end of the hole, till they both meet at the centre ; so would they stand on each other's feet with their

heads towards the zenith, in their natural posture, without feeling one another's weight.

Paradox 4. There is a certain place of the earth, where, a fire being made, neither flame nor smoke would ascend, but move circularly about the fire; moreover, if in that place one should fix a smooth or plain table without any ledges, and pour thereon a large quantity of water, not one drop would run over the table but raise itself upon a heap.

Answer. This place also must be in the centre of the earth.

Paradox 5. There is a noted place on the earth where the sun and the moon, even at the full, may both happen to rise at the same time and upon the same point of the compass.

Answer. Under the north pole the sun and the full moon, both decreasing in south declination, may rise in the equinoctial points at the same time, and under the north pole there is no other point of compass but south.

Paradox 6. There is a certain island in the Levant, upon which, if two children, born at the same time, and living together several years, should both die at the same time, yet the life of the one would surpass the life of the other by several months.

Answer. If one of the persons travels east, and the other west, round the globe, which may be done in a year, there will be two days difference in their account of time; if this travelling be continued for forty years, there will be eighty days difference in their reckonings; and so many days older will he be who travelled eastward; than he who travelled westward.

Paradox 7. Some persons talking of the variety of busnels they had seen one man perform in a short

a short time, was interrupted by one who declared he had seen a man, who in one day could do as much business as an hundred such men as they had been talking of.

Answer. In one of the long days within the polar circles, in the extremities of which the days are half-a-year long.

Paradox 8. A very great traveller asserted that he had seen Witsunday fall the longest day, on the shortest day, and when the days and nights were equal.

Answer. In the year 1739 the sun entered Cancer on Whitsunday, being the longest day in north latitude, the shortest in south latitude, and under the equator day and night equal; now the traveller crossing the line on that day, sees what is above mentioned.

Paradox 9. There is a certain place in the island of Great Britain where the stars are always visible at any time of the day, if the sky is clear.

Answer. In a deep well, or coal-pit, the surrounding light, which the atmosphere spreads in the open air, is removed from the sight, so that if the shaft of the pit or well be straight those stars near the zenith will be readily discovered.

Paradox 10. There is a remarkable river on the continent of Europe, over which there is a bridge of such a breadth, that three thousand men may walk along a breast upon it, and that without in the least crowding one another.

Answer. There are rivers which, in some part of their course, run under-ground for two or three miles, which is breadth enough for the purpose in the paradox.

Paradox 11. There is a certain hill in the south of Bohemia, on whose summit is an equinoctial dial

be duly erected, a man who is stone blind may know the hour of the day, if the sun shines.

Answer. Perhaps it never doth shine on that hill, because there is said to be a mountain which encircles all Bohemia, or perhaps never till noon; so then if you tell the blind man the sun shines, he will tell you it is 12 o'clock. However, I know no way better to make a blind man's sun-dial than the following.

Fill a glass globe with water, which let be fixed in a sphere with twelve polished iron meridians, each having so many nicks as the number of the hour belonging thereto, precisely at the distance of the focus from the globe; so will the globe full of water unite the solar rays, that they will burn at a distance: thus, this equinoctial dial being fixed in the sun-shine, on a hill or valley, one that is stone-blind may feel which meridian is hottest, and grope out by the nicks the number of the present hour.

Paradox. 12. There is a considerable number of places lying within the torrid zone, in any of which if a certain kind of sun-dial be duly erected, the shadow will go back several degrees upon the same, at a certain time of the year, and that twice every day for the space of divers weeks; yet no ways derogating from that miracnlous returning of the shadow upon the dial of Ahaz, in the days of king Hezekiah.

Answer. And where in the torrid zone, where the latitude is less than the declination of the sun, and both towards the same pole. The sun comes twice to the same point of the compass, both forenoon and afternoon, and on equinoctial dial placed horizontally, the shadow of the gnomon shall go back, *plus minus*, twice every day. But because the paradox mentions a certain kind of dial, I suppose

pose it may be thus answered by a plain equinoctial dial, described on both sides of an horizontal plane with two gnomons, and near the tropic, where the latitude and declination are equal; before the sun comes to the mathematical horizon in the morning he will shine on the lower side of the plane, and the shadow of the gnomon will run westward *ad infinitum*, and presently after six o'clock, as he shines on the upper plane, the shadow runs eastward till noon, and thence till six in the evening, at which time the shadow on the lower plane will begin and run westward till sun set.

There may, by concave, convex, and reflex dials, be other ways of solving this paradox.

The author would now have proceeded to present his readers with a chapter or two on *Apparitions*, *Witches*, and *Dreams*; but having anticipated himself in two treatises already published*, he proposes next to treat on such arts and sciences as more immediately fall under the present undertaking.

* The treatises alluded to are, 1. *The Majesty of Darkness discovered*; on Witches, Apparitions, and in fine and ample display of the invisible world: and 2. *The Mystery of Dreams*; delineating their nature and prophetic certainty, in a great variety of curious stories and a dictionary of dreams.

CHAP. IV.

PLEASING ENTERTAINMENTS AND
CURIOSUS TRICKS.

To make a loaf of new bread, set upon a table, to fly off.

TAKE a quill, filling the same with quicksilver and stopping it close, thrust the same into a hot loaf newly drawn out of the oven, and the loaf will dance upon the table.

To make an egg fly about.

Take a goose egg, and after the opening and the cleansing of it, take a batt that flies in the evening which put into the shell ; then glue it fast on the top, and the bat will fly away with it, which will be thought to fly in the air of itself.

To know a counterfeit stone from a natural precious stone.

Rub the stone on lead, and if it change the colour, it is counterfeit ; if not, it is natural.

How a man may put his finger, or wash his hands in melted lead, without danger of burning.

Take one ounce of quicksilver, two ounces of good bol-armoniac, half an ounce of camphire, and two ounces of aquæ-vitæ ; mingle them together, and put them into a brazen mortar and beat them with a pestle ; having so done anoint your hands

all over with this ointment, and you may put your finger into melted lead, or you may wash your hands therewith.—If you pour the lead upon them it will neither burn nor scald you.

To make Hair shine like Gold,

Take colewort stalks, day and burn them, and with the ashes make a lye to wash the hair.

To make one behold dreadful sights in his sleep.

Take the blood of a lapwing, and anoint therewith the pulses of the forehead of the person going to rest.—If in the evening before going to bed a man eat a small quantity of night-shade or mandrake, he shall see pleasant sights in his dream.

To make a blown bladder skip from place to place

Put quiksilver in a bladder, and lay the bladder in a hot place, and it will skip up and down without handling.

To produce a Chicken without a Hen.

Take an egg and lay it in the powder of hen's dung, dried and mingled with some of the hen's feathers.

To put an Egg into a Phial.

Steep the egg two days and two nights in vinegar, and then roll it on a table softly, and it will stretch so that you may put it into a phial, or draw it through a ring.

To cause the cup stick to a man's lips that it can hardly be pulled away.

Take the milk of a fig-tree, mingle it with tra-

gacanth,

lant, and lay it on the man's lips to make them

white.

gacanth, and anoint the brim of the cup with it, which when dry will not be seen; then give it to any one full of wine to drink, and it will, before he has done drinking, stick so fast to his lips, that it will be difficult, if not impossible, to pluck it away.

To seem to kill a Horse and to cure him again.

Take the seed of henbane, and give it to the horse in his provender, and it will cast him into such a deep sleep that he will seem dead. To recover him, rub his nostrils with vinegar and he will seem to be revived.

How to pull laces out of your mouth of what colour or length you list, and never any thing seen therein.

Put one round bottom in your mouth as fast as you putt out another, and at the just end of every yard tie a knot, so as the same rests upon the teeth, then cut off the same; for so the spectators are doubly and trebly deceived, seeing as much lace as will be contained in a hat, and the same of what colour you list to name, to be drawn by so even yards out of your mouth, and to talk as if you had nothing at all in your mouth.

To thrust a Bodkin into your Head without hurt.

Take a bodkin, so made as the hilt being hollow the blade thereof may slip into it as soon as you shall hold the point upwards, and set the same to your forehead and seem to thrust it in, and so with a little sponge in yor hand, yow may bring out blood or wine, making the beholders believe that it comes out of your forehead; then after the countenance of pain and griet, pull away your hand suddenly

suddenly holding the point downwards, and it will fall out, yet not seem to have been thrust into the shaft; but immediately thrust that bodkin into your lap or pocket, and pull out another plain bodkin like the same, something bloody.

To make any fowls have their feathers white.

Take the eggs and roll them in the herb called mouse-ear, or in houle-leek, or in oil, put the eggs in the nest again, and after hatching, the Fowls will grow white.

To make a sword or dagger cut iron as easily as lead.

If a sword or dagger, or knife, being only iron, and fashioned, and being red-hot, be quenched in the juice of radish, mixed in the water of fresh worms distilled according to art, being before somewhat bruised, that such a sword, dagger, or knife, will have such a strange edge if it be quenched four or five times in this water, that you may cut iron as easily with it as if it were lead.

To make Steel as soft as paste.

Take the gall of an ox, man's urine, verjuice, and the juice of nettles, of each a little quantity, and mix them well together, then quench the steel red-hot in this liquor, and it will be as soft as paste.

A curious example of a trick played with quicksilver.

An old woman on a Sunday was making dumplings, when two of her grandsons came to see her, and, being merrily disposed, while her back was turned conveyed some quicksilver into the dough and

and then took their leave. The old woman left the care of the cooking to her grand-daughter, and went herself to church, charging her to be careful and skim the pot in which was to be boiled the dumplings and a leg of mutton. The girl was very careful to watch when the pot boiled, and taking off the cover, out jumped a dumpling, which she instantly put in again, when out flew another, and another after that, which so terrified the girl that she ran with all speed to the church; the old woman seeing her come, shook her head, winking at her, as much as to say, "begone!" At last the girl cried out before the whole congregation "all your nodding and winking does not signify, for the leg of mutton has beat the dumplings out of the pot." This caused much laughter, and the old woman's two grandsons, being then on their knees, saw plainly the pleasing effect of their experiment: but to play tricks with quicksilver should be done with no small circumspection, as it is rather dangerous; for I well remember an incident that occurred some years ago in a village in Northumberland, where some blades tried a similar experiment with a haggis, on a Sunday too, which jumped out of the pot, flew out at an open casement, and ran down the green, just as the people were returning from church, and unluckily bursting just as an old gentlewoman was getting over the stile, projected its contents all over her face and forced her back-wards, to the no small amazement of some, and the diversion of many of the spectators.

A puzzling mathematical Question to be proposed for Solution.

Set down three sums on paper, and say to the company—"Ladies and gentleman, there are three sums

sums very different from each other, and very disproportionate, yet I wish to divide them among three persons, so that they may each have an equal sum, and yet without altering any thing in either of the sums. This will appear very difficult, yet nothing is so simple and easy; one single addition will suffice to prove to you, that the amount of each sum will be the same. Example!

5134122.

01254.

7218.

Operation. Cast up the first of these sums in the following manner.

Say 5 and 1, make 6; 3 more, 9; 4 more, 13; 1 more, 14; 2 more, 16; and 2 more, 18; let down 18.

Make the addition of the second sum in the same manner as you have done the first, and you will find the same sum of 18.

Then proceed to the third as in the two preceding, and the product will also be 18.

Here then is my division made, and each person will have only 18, as I have proved by the foregoing example.

By this we see, that nothing more is required than to be attentive in setting down the sums, to make the number so that each sum may amount only to 18.

To tell a Person any Number he thinks on.

Say—"Multiply your number by 3."—"It is done."—"Is the product odd or even?"—"It is odd."—"add one, and halve it."—"It is done."—"That half multiply by 3."—"That I have done."—"Is that product even or odd?"—"It is odd."—"Then

—Then add one to it, half that sum, and tell me how many 9's are in the half.”

The Rule. For the first addition to an odd number account 1; for the second addition reckon 2, which makes 3: and for each 9 in the half of the second product count 4; these added will make the number thought on: as for example, if he says two 9's, then the number thought on was 11, which you may prove at your leisure,

N. B. When the number is even, and there is no addition required, you only reckon 4 for each 6, as before directed.

CHAP. V.

WE shall in this chapter present the reader with a continued variety of philosophical mathematical, and curious amusements, before we proceed to the more mysterious matters proposed in our plan.

To break a Staff upon two Glasses.

Place the glasses (being full of water) upon two joint stools, equally distant from the ground, and from one another the length of the staff; then place the ends of the staff upon the edges of the two glasses, so that they be sharp; this done strike the staff in the middle with all the force you can with another staff, and it will break without breaking the glasses, or spilling the water,

A Winter,

A Winter Evening's Entertainment, by making Water freeze by the Fire-side.

Set a quart pot upon a stool before the fire, having previously thrown a little water upon the stool, put an handful of snow into the pot, and also convey into it privately an handful of salt. Hold fast the pot with one hand, and with a short stick stir the contents with the other, as if you was churning butter; in half a quarter of an hour the pot will freeze so hard to the stool, that you can scarcely with both hands disengage it.

To fasten a Sixpence at the end of a common Thread and after burning the Thread, to leave the Sixpence suspended at the end of it.

This surprising manœuvre, which long puzzled all the learned in thele arts, is performed by the most simple means as follows; soak the thread in salt and water for some time, and then dry it before the fire; the saline particles adhering to the thread, though imperceptible, will immediately catch the flame of the candle, and burn like so much tow, and yet the body of the thread will remain firm and undiminished; you must not touch the thread during the operation, otherwise it will pulverize and crumble to ashes.

To cut a Looking glass, however thick without assistance of a Diamond.

Take a bit of walnut-tree, about the thickness of a candle, and cut one of its ends to a point; put that end in the fire, and let it burn till it is quite red. While the stick is burning, draw on the glass with ink the line, crooked or straight,

which you mean to pursue in cutting; then take a file or a bit of glass, and scratch a little the place where you begin; then take the stick red-hot from the fire, and lay the point of it about the twentieth part of an inch, or thickness of a guinea from the marked place; taking care to blow always on that point, to keep it red; follow the line drawn, still leaving the above distance every time you present your piece of wood, which you must take care to blow frequently; after having thus exactly traced the line drawn, the separation will require you to pull the pieces up and down for a moment, and they will safely divide.

To make Steel like Lead.

Take a piece of steel and put it into a crucible, then cast in an handful of powdered antimony: as soon as your crucible begins to be red, for which purpose no great fire will be required, your piece of steel will melt like lead. Pour it then into an earthen vessel, or a wedge mould; to discover that your attempt has succeeded.

The following is another method of performing the above operation: put a piece of steel in the fire, and when red hot, hold it with a pair of pincers or tongs; take in your other hand a piece of Brimstone, and touch the piece of steel with it; and immediately after their contact, you will behold the steel melt and drop like a liquid.

It is thus that the saw and edge-tool makers avail themselves of casting steel into what form suits their convenience; a method infinitely superior and less laborious than the usual antiquated way of hammering.

A philo-

A philosophical Mushroom.

Provide yourself with a glass which terminates in a point internally, and which must stand on a large bottom. Put into the glass one ounce of spirits of nitre, well rarified; then pour over it an ounce of essential oil of guaiacum; this mixture will produce a very considerable ferment, mixed with smoke, out of which will arise, in the space of three minutes, a fpong'y body perfectly resembling a common mushroom.

To make sport in company with a Tobacco-Pipe.

Take saltpetre one ounce, cream of tartar one ounce, sulphur half an ounce, beat them to powder singly; then mix them together, and put the powder in a paper in your pocket; you may then convey a grain into a pipe of tobacco, and when it takes fire it will give the report of a musket, but not break the pipe: or you may put as much as will lie on your nail, in any place upon little bits of paper, and setting fire to it, there will be the report of so many great guns, without producing any bad consequences.

To recover a lost Voice.

Take a dram of crab's-eyes for three days successively; or you may take ten drops of balsam of sulphur, in a little powdered sugar, twice or thrice a day.

To make a perpetual Motion.

Put very small filings of iron into aqua-fortis, and let them remain there till the water has taken off the iron requisite, which will happen in seven or eight hours; then take off the water and put

it into a phial an inch wide, with a large mouth, and put in a stone of lapis calaminares and stop it close, and the stone will keep in a perpetual motion.

To make Fire burn under Water.

Take three ounces of powder of salt-petre one ounce, sulphur-vivum three ounces; beat, sift, and mix them well together, fill a pasteboard or paper-mould with the composition, and it will burn under the water till quite spent. By this many a wager may be won, but few will believe it before they have seen it tried.

How to rub out twenty chalks at five times, rubbing out every time an odd one.

Make twenty chalks or long strokes upon a board; then begin and count backwards, as 20, 19, 18, 17, rub out these four; then proceed—16, 15, 14, 13, rub out these four, and begin again—12, 11, 10, 9, rub out these; and proceed—8, 7, 6, 5, rub out these; and lastly say, 4, 3, 2, 1, by rubbing out these the whole 20 are obliterated at five times, and every time an odd one, that is the 17, 13, 9, 5, and 1.

The wonderful Well.

Four different coloured seeds, or small comfits, are given to one of the audience to mix together and throw down the well; he then is desired to let down the bucket, and name the colour he would have brought up first, and so on till all the colours are separated.

The well is made to take off in the middle, in the lower part of which are four cells to contain the different seeds, which must be filled before the trick is performed, and closed by four valves similar

similar to the keys of a German flute; the well towards the bottom is made narrower, so as just to fit the bucket, which being let down, the performer demands what colour the company chuses to be drawn up, and by touching the lever the seed required will fall into the bucket.

A curious Computation.

The Old and New Testaments contain.

	Old.	New.	Total.
Books	- 39	27	66
Chapters	- 9 ² 9	26c	1,189
Verses	- 23,214	7,959	31,173
Words	- 59 ² ,439	181,153	73,692
Letters	2,728,100	838,830	3,566,480

Apocrypha.

Chapters	-	183
Verses	-	6,081
Words	-	152,185

The middle chapter, and the least in the Bible is
Psalm cxvii.

The middle verse is the 8th of Psalm cxviii.

The middle time is 2 Chron. chap. iv. verse 16.

The word *and* occurs in the Old Testament 35,543
times.

The word *zehovah* occurs 6,855 times.

Old Testament.

The middle book is Proverbs.

The middle chapter is Job xxix.

The middle verse is 2 Chron. ch. xx. between the 17th and 18th verses.

The least verse is 1 Chron. ch. 1. verse 1.

The 21st verse of the 7th chapter of Ezra has all the letters of the alphabet.

2 Kings ch. 19. and Isaiah ch. xxxvii. are alike.

New Testament.

The middle book is Thessalonians 2d epistle.

The middle chapter is between Rom. xiii. and xiv.

The middle verse is Acts xvii. 17.

The least verse is John xi. 35.

The blind Abbess and her Nuns a curious re-creation.

Twenty-four nuns are equally distributed in eight cells, built at the four corners of a square and in the middle of each side; the abbess on her visit finds an equal number in every row, containing 3 cells. At a second visit, she finds the same number of persons in each row as before, though the company was increased by the accession of four men. And coming a third time, she still finds the same number of persons in each row as before, though the four men were then gone, and had each of them carried away a nun with them.

1	2	3
3 3 3	2 5 2	4 1 4
3 3 3	5 5 5	1 1 1
3 3 3	2 5 2	4 1 4

Let the nuns be first placed as in table 1, three in each cell; then when the four men have got into the cells, there must be a man placed in each corner, and two nuns removed from thence to each of the middle cells, as in table 2; in which case there will evidently be still nine in each row, and when the four men are gone with the four nuns with them, each corner cell must contain four nuns, and every other cell one, as in table 3; it being evident, that in this case also, there will still be nine in a row as before.

A Disposition of the Nine Digits, so as to make 15 each way, up or down, and also angularly.

8	3	4
1	5	9
6	7	2

A person having made choice of several numbers, to tell him what number will exactly divide the sum of those he has chosen.

Provide a small bag divided into two parts; into one of which put several tickets, numbered 6, 9, 15, 36, 63, 120, 213, 309, &c. and in the other part put as many other tickets marked with the number 3 only.

Draw a handful of tickets from the first part, and after shewing them to the company, put them into the bag again; and having opened a second time, desire any one to take out as many tickets as he thinks proper.

When he has done this, you open privately the other part of the bag, and tell him to take out of it one ticket only.

You may then pronounce that the ticket shall contain

contain the number by which the amount of the other number is divisible; for as each of these numbers are some multiple of three, their sum must evidently be divisible by that number.

An ingenious mind may easily diversity this recreation, by marking the tickets in one part of the bag with any numbers which are divisible by 9 only; the properties of both 9 and 3 being the same.

To tell the number that another man shall think on, be it ever so great.

Bid the party double the number which he has fixed on in his mind: which done, bid him multiply the sum of them both by 5 and give you the product (which they will never refuse to do, it being so far above the number thought) from which if you cut off the last figure of the product (which will always be a cypher or a 5) the number left will be that first thought upon.

As for example: let the number thought on be 26, which doubled, makes 52; that multiplied by 5, produces 260; then if you take away the cypher which is in the last place, there will remain 26, the number thought on.

The three Sisters turned App'e-Women.

A farmer had three daughters whom he sent to market to sell apples. To the eldest he gave 22, to the second 16, and to the third 10 apples; enjoining all of them to sell them at 7 a-penny, neither more nor less, and charging every one to bring him home as much money as the other, and neither change apples nor money one with another.

They managed their market thus: a Lady's steward bought all the apples they had at 7 a-penny leaving behind the odd ones; then the eldest sister had

3d. and 1 apple; the middle sister 2d. and 2 apples; and the youngest 1d. and three apples. The steward carrying the fruit to his lady, she liked them so well that she ordered him to return for the remainder, bidding him purchase them at any rate. On his return he found the sisters had raised their price to a penny a-piece, which he gave them; then had the youngest sister three penny-worth, the second two penny-worth, and the eldest one penny-worth; so that each carried home four pence, without changing apples or money.

The Orchard-robber and the Pears.

A boy stole from an orchard a certain number of pears; but unluckily on his retreat was met by three men, one after another, each of whom he was under the necessity of appeasing as follows; to the first he gave half the pears he had stolen; who however, returned him 12; to the second he gave half of the remainder, who returned him 7; and unto the third he gave half the residue, who returned him 4, in the end he had 20 remaining. How many had he in his possession when observed by the first man who met him;

The solution of this question requires a backward operation; for if you take 4 from 20, 16 remains, that number doubled is 32, from which subtract 7, and 25 will remain; that doubled is 50, from which taking 12, there will remain 38, which doubled makes 76, the number required.

C H A P. VI.

OCCULT PHILOSOPHY.

THE ancient Greek philosophers pursued in their speculations what they called a septennial division. They divided the twelve times seven years which are allotted to mankind, into four stages; ascribing to each a different share of those internal agitations which seemed before to be interspersed in the whole course of our existence: a variety so much like the vicissitude of the seasons. The spring of life, said these sages, end at one-and-twenty, the summer at forty-two, the autumn at sixty-three (the period of the grand climacteric) and the extremity of winter, which closes the scene, at eighty-four. Whoever surpasses this period may be said to renew their age, and to enter upon a second childhood, which, however, can never arrive at maturity.

2. The sun-flower is endued with wonderful virtues; for if gathered when the sun is in the first sign of the zodiac, and wrapped in a leaf of laurel, adding to it the tooth of a wolf, the person who carries it about him shall find that nobody can have the power of using any other than mild language to him. Also, if any thing has been taken from him by stealth, let him lay it under his head by night, and he shall behold the thief, and view all the circumstances of the theft.

3. By holding in your hand a nettle, together with a milfoil, you are free from the dread of all apparitions and witches. Mix it with the juice of sen-

green,

green, and smear your hands with it, putting a part into any water where there are fish, it will not fail to attract them. Withdraw it, and they will disperse that instant.

4. Take the herb called shepherd's-rod, mix it with the juice of the mandrake, and it will impregnate the female of any animal it is given to, and produce one of its species. The jaw-tooth of a creature thus produced, being steeped in any liquor, will provoke those who taste it to a quarrelsome disposition, to appease which, swallow the juice of the herb valerian.

Not less strange is the property of the herb celandine, which if suspended over the head of a sick person, will set him a singing aloud, it likely to live; it to die, it will make him weep.

The herb periwinkle, being pulverised with earth-worms and sengreen, creates affection between man and wife, by putting a small quantity into their food. A little of the same preparation with some sulphur, being thrown into a fish-pond, will destroy the fish; and being applied to the mouth of a bantam, will caule an explosion, *a posteriori* tremendous to hear.

5. The herb cat-mint, with a stone found in the Puet's nest, being held to the nose of an animal makes him drop down to all appearance dead—but he will soon recover.

The same being put into a receptacle for bees, will prevent their going away; and though they were put into water, and taken out without any signs of life, it will restore them to their wonted vigour in the space of an hour.

The herb dog's-tongue, with the heart of a young frog and its matrix, in a short time will collect a multitude of dogs to the place where it is laid.

Put,

Put the same herb under your great toe, and it will prevent a dog's barking at you.—Tie it to a dog's neck, in such a manner that he cannot get at it with his teeth, and he will wheel round without ceasing, till he fall down apparently dead

The herb henbane, mixed with wild saffron, and given to a mad dog, kills him instantly.—The juice of these herbs, being put into a silver cup, will break it into small particles; and whosoever would bring a number of hares together, needs but to carry it, with the blood of a leveret, in a hares skin

6. The lily. Gather this herb while the sun is in Leo, mix it with the juice of the laurel, which done, bury it some time under dung, and worms shall breed from it; which worms being reduced to a powder and applied to one's neck, will not let the bearer sleep: if put into a vessel containing cow's milk, and covered with the hide of a cow of one colour, it will dry the udders of all.

7. The mistletoe, was held in great veneration by the ancient druids of Gaul and Britain; and no wonder, if they understood its virtue.

Albertus Magnus affirms, that the mistletoe, and another herb called the niartagon, have the amazing virtue of any lock whatsoever.

If put into the mouth of a person who thinks upon a certain thing, it will dwell upon his memory if it be to happen; if not, he will forget it. Let it be suspended from a tree with the wing of a swallow and birds innumerable will flock to or around it.

8. The herb centaury is said to have wonderful virtues; for, if it with the blood of the female puer is put into a lamp, all the bystanders will think themselves enchanted in such a manner, that their position will appear inverted, supposing their heads

to

to be where their feet are: again, if thrown into the fire, the stars shall appear tilting at one another: moreover, when applied to the nose of any one, it will operate so as to make him run himself out of breath for fear.

9. Sage being rotten under dung, and put under a glas, will produce a worm, or a bird having a tail like that of a black-bird; the blood of which, if it touch a person's breast, renders the person so touched senseless for a fortnight.—Another property of it is, that if the powder it may be reduced to, be put into a lamp, the room in which it burns will appear full of serpents.

10. Vervain has, among others, a salutary property;—gather it when the sun is in Aries, or the month of March, and with a grain of piony of one year's growth, it will prove a specific to those who are afflicted with the epilepy or fits; if put into a rich mould it will produce worms in eight weeks, which are immediate death to whoever touches them.

Another property of it is to attact pigeons, which when put into a dove-cot it does amazingly.

Balm-gentle is an herb which when gathered green, and moistened with juice of a cypress of a year's growth, and infused into any porrage, will make it appear full of worms.—Let it be fastened to an ox's neck, and he will follow you wherever you go.

It is generally allowed by the occult philosophers, that the celestial bodies have a great influence over not only herbs, plants, and flowers, but also believed that they preside over the actions and affections of all animated beings, up to man who is styled the *Lord of the Creation.*

And though it is not our design to touch largely upon the science of astronomy, or the arts of astrology, &c. yet in this place we will mention the twelve signs of the zodiac, together with the planets; the former, being twelve in number, rule the months in the revolving year; the latter preside over their respective days of the week. In this we follow the Roman calendar.

1. March, is ruled by *Aries*, or the Ram, and those who are born under this sign will prove active, tenacious in memory, and inclined to extremes both in anger and affection. If born on a Tuesday, during the reign of the planet Mars, he will be prone to heroic deeds and probably acquire glory and renown in the defence of his country.

2. April—*Taurus*, or the Bull.—Broad shoulders, strong heads, thick necks, liable to hurts in the limbs—great eaters—short lived.

3. May—*Gemini*, or the Twins.—Delicate—subject to sickness—mild tempered—capable of real affection and friendship—seldom long-lived—if born on Sunday (when the sun predominates) a sign of riches.

4. June—*Cancer*, the Crab.—Corpulent, short—fond of the water—subject to eruptions and chronic disorders—vicious in love.

5. July—*Leo*, the Lion.—Bold—born to honour—noble—generous—good understanding—susceptible of amity.

6. August—*Virgo*, the Virgin.—Sly—artful—little share of sense—unmarried long, or for life.

7. September—*Libra*, the Scales.—Delicate—sensible—rather rash and hasty—admired by the women—and prosperous.

8. October—*Scorpio*, the Scorpion.—Passionate—spiteful—deceitful in friendship—much devoted

to the fair sex, not always happy in their connections—many children—impose on others—imposed upon—impatient in trouble.

9. November—*Sagittarius*, the Archer.—Wife discreet—rather grave than gay—fond of solitude—sincere in love and friendship—marry young—few children—many crosses—end in happiness.

10. December—*Capricorn*, the Sea-Goat.—Great traveller—go to sea, and distant countries—liable to dangers—will surmount them—become eminent—rich—esteemed.

11. January—*Aquarius*, the Water-Pot.—Sweet temper—affable—happy in wealth—kind to friends—good natured—agreeable—handsome—liberal—blest in love—many children—old age.

12. February—*Pisces*, the Fishes—Trade, merchandize, wealth—phlegmatic—subject to cold disorders—live happy in the married state—many children, generally sons.

Planets.

1. <i>Sol</i> , or the Sun, rules on Sunday.	
2. <i>Luna</i> , the Moon,	Monday.
3. <i>Mars</i> ,	Tuesday.
4. <i>Mercury</i> ,	Wednesday.
5. <i>Jupiter</i> ,	Thursday.
6. <i>Venus</i> ,	Friday.
7. <i>Saturn</i> ,	Saturday.

CHAP. VII.

LEGERDEMAIN.

SLIGHT of hand, or Legerdemain, is an art which affords no small diversion to the spectators, as it appears to participate much of the marvellous. The performer must be a person of a bold and undaunted resolution; bashfulness must form but a small part of his natural disposition. A good face and a volubility of tongue are essentially necessary. His address must be easy, his gestures striking, his eye quick, his hand nimble to the utmost extreme; and, in a word, he ought to be the polite gentleman, and the finished performer.

How to pass the Balls through the Cups.

Place yourself at the farther end of the table; provide three cups composed of tin, a magic wand, four small cork balls to play with, discovering never more than three at the same time upon the table.

Always conceal one ball in your right hand, between the middle and ring finger; having previously practised till you have attained perfection in holding it, as much depends upon that in all the operation. Then say:

“ Gentlemen, there is three cups; 'tis true they are but tin—the reason why? silver is something dear—I'll turn them into gold, if I live, &c.—No equivocation at all; but if your eyes are not as quick

quick as my hands, I shall deceive you all. View them within, view them all round about; where there is nothing in, there is nothing can come out!" So take your balls privately between your fingers, and flinging one of them upon the table, say—

The first trick that I learn'd to do,
Was out of three to make them into two:
Ah! since it can no better be,
From half I'll cut them into three—
The first trick of dexterity.

}

The manner of doing which is this: your three balls being laid upon the table, say—"Ladies and gentlemen, you see here are three balls, and there are three cups; that is a cup for each ball, and a ball for each cup." Then taking the ball which you have in your right hand, which you are always to keep private, and clapping it under the first cup, take up one of the three balls with your right hand, appearing to put it into your left hand, but retaining it still in your right, shut your left in due time, and say—*Presto, Begone!*

Then taking the second cup up say—"Ladies and gentlemen, you see there is nothing under my cup;"—so clap the ball under that in your right hand, and then take the second ball up with your right hand, and seem to put it into your left, but retain it in your right, shutting your left hand in due time, as before, saying...*Vada, begone!*

Then taking the third cup, say—"Ladies and gentlemen, you see there is nothing under my last cup;" then clapping the ball under your right hand, and taking the third ball up with your right hand, and seeming to put it under your left, but retaining it in your right hand, and shutting your left hand in

due time, as before, saying---*Presto, make haste!* you now have your three balls come under your three cups, and so lay your three cups down on the table.

Then with your right hand take up the first cup, and then clap the ball under that you have in your right hand, saying---“ Gentlemen, this being the first ball, I'll put it into my pocket :” but you must still keep it for play in your right hand.

In the same manner take up the second cup with your right hand, and say---“ This also I take and put into my pocket.”

Likewise take the third cup and clapping it down again, convey the ball that you have in your right hand under the cup ; then take the third ball, saying---“ Gentlemen, this being the last ball, I take and put it in my pocket ; adding, after a little hesitation---“ Gentlemen, by a little of my powder of *Hocus Pocus*, I command these balls under the cups again.” So lay them all along the table to the amazement of the spectators.

Then take up the first cup, and clapping the ball under that in your right hand, and then taking the first ball with the right hand, seeming to put the same into your left, but retain it still in your right, then say---*Vada, be quick; begone when I bid you and run under the cup.*

When taking that cup up again, flinging that under which you have in your right hand ; then you must take up the second ball, and appear to put it under your left, but retain it in the right, saying, “ Gentlemen, see how the ball runs on the table,” seeming to fling it away.

So taking the same cup up again, and clapping the ball under as before, take the third ball in your right hand, and appear to put it under your left, still

still keeping it in your right; with your left hand seem to fling it into the cup, and all the three balls will appear under one cup.

When, by ardent practice and unwearied diligence, you have completely acquired the art of performing these manœuvres with the cups, you may change the balls into apples, pears, plumbs, or into living birds, &c.

The Magic Lanthorn.

The magic lanthorn is a small optical machine, which shews by a gloomy light upon a white wall, monsters so hideous, that those who are ignorant of the secret believe to be performed by magic. The body of this instrument is generally made of tin, and in the shape of a lamp. Towards the back is a concave looking-glass of metal, which may either be spherical or parabolical, and which, by a grove made in the bottom of the lanthorn, may be either advanced nearer, or kept farther back from the lamp, in which is used oil or spirit of wine. The match ought to be a little thick, that when it is lighted it may cast such a light that may easily reflect from the glass to the fore part of the lanthorn, where there is an aperture, with a perspective composed of two glasses, that make the rays converge and magnify the object.

When you mean to use this instrument, light the lamp, the blaze of which will be much augmented by the looking-glass at a commodious distance. Between the fore part and the perspective glass you have a trough, made on purpose, on which you are to run along a flat frame, with transparent colours upon glass; then all these little figures, passing successively before the perspective glass, through which the light of the lamp passes, will be painted.

painted and represented with the same colours upon the wall of a dark room in a gigantic and monstrous manner.

By this lanthorn you may shew any man or woman, or living or dead, and represent beasts, birds, fishes, and every form in nature.

The multiplied Pieces.

The performer lays a dozen of round tin pieces, the size of half-a-crown, upon the table: he then desires one or the company of take them in his hand and hold them fast; he demands how many he would have, from twelve to twenty, and causes him to count down the number required.

This trick consists in the palming of eight piece in the right hand, holding it strait, and using it in such a manner as if there was nothing in it. After he has desired the person to take the twelve pieces in his hand, he orders him to count them, down on the table, to be convinced they are right, and in pushing them together, that the person may not count them in the taking up again, he slips the eight concealed pieces in his hand among the rest. He then asks the person how many he desires, from twelve to twenty, and the highest number is generally chosen.

The double Transposition.

After the preceding operation, the performer borrows three rings from different persons, and covers them with a tin cap; he then commands the rings to disappear, and the twenty pieces to appear in their place, and *vice versa*.

The performer is provided with twenty tin pieces riveted together, with holes through them all but the uppermost, large enough to receive the rings; these

these he conceals in the cap before he begins the performance; he then covers the rings with the cap, and takes the loose pieces in his hand, and in knocking under the table conveys them away: he then takes the cap by the top, the rings are gone, and the pieces appear. He now covers them again, and, by knocking under the table a second time, lets you hear the pieces jingle into his hand, and in lifting up the cap, he pinches the sides close, and by that means takes up the pieces which are fast together, and the rings appear again.

To appear to swallow a long Pudding.

This pudding, as it is called by performers in legerdemain, is composed of tin, and consists of 12 or 13 little hoops, in round and little ringlets, so that they may almost seem to fall one through another; having at the biggest end a little hole, that it may not injure your mouth. Hold this pudding privately in your left hand, with the end having the hole uppermost, and take a ball out of your pocket with your right hand. Then use some cant phrase, as—"If here is ever a maid who has lost her maidenhead, or an old woman who is out of conceit with herself, let them come to me; for this ball is a present remedy." Then appear to put the ball into your left hand, but let it slip into your lap, and clap the pudding into your mouth, which the spectators will imagine to be the ball that you just exhibited; then decline your head, and open your mouth, and the pudding will fall down at its full length, which with your right hand you may strike back into your mouth; doing this three or four times, you may discharge it into your hand, and clap it into your pocket without any suspicion, by making a few wry faces after it, as if it stuck in

your

your throat, and if you add a little smiting gently on your throat on each side with your fist, the pudding will seem to clink, as if it was fixed there; then exclaim—"Thus, Ladies and Gentlemen, the High Germans preserve their teeth, by throwing their puddings precipitately down their throats."

The Sympathetic Lamp.

This lamp is placed on a table. At a distance you blow through a tube, without directing the air to the spot where the lamp is; yet the lamp is extinguished as if you blew it out.

This lamp in its base has a small bellows, the wind of which is conveyed by a little tube to the flame. The confederate, by moving the levers, hid in the table, puts in motion the bellows, to extinguish the lamp at the moment required.

Or this trick may be done by having a spring in the base of the lamp, to draw the wick into the socket, when the lever is moved in the table, by which you may make it appear or disappear at pleasure.

The visible invisible.

Display upon a large looking-glass a variety of verses and figures, such as may be agreeable to the company. Hand round the glass, that all may behold the devices; then take your handkerchief and wipe the glass, and all the writing and drawing will be obliterated. Then desire any one in the company to breath upon the glass, and that moment it is done all the characters become as visible as ever.

This is done by writing with French chalk, which is a compound of a greasy, but extraordinary nature, and is often used to draw portraits upon looking-glasses, when the picture may be visible or invisible,

as

as the possessor thinks proper, only by breathing or wiping of it, and it will continue so for many months.

CHAP. VIII.

A CONTINUATION OF MAGICAL OPERATIONS, &c.

A piece of money shut up in a box, which of itself, without being touched, makes its appearance to the company.

A person is required to hold a box, into which is put before his eyes a piece of money or a ring. You stand at a distance, and bid him shake the box gently; the piece is heard to rattle within. He is again desired to shake it, and then it is not heard to rattle. The third time it again is heard; but the fourth time it is gone, and is found in the shoe of one of the company.

The box must be made on purpose, because all the performers of tricks sell them: that one which has caused such wonder at Paris and London, only differs from the others, as being somewhat better fabricated, belonging to a person who embellishes his tricks with all possible advantages.

This box is made in such a manner, that in shaking it gently up and down, the piece within it is hard. On the contrary, shaking it hard horizontally, a little spring which falls on the piece, prevents it from being heard, which makes you imagine it is not within. The performer then touches the box, under pretence to shew you how

to shake it, and although it is locked, gets out the piece by means of a secret opening, availing himself of that moment to put in a false piece, and to leave the box with the same person ; and he causes you either to believe that the piece is not within, according to the manner the box is shaken....At length the original piece is found in the shoe of one of the company, either by means of a person in the confederacy, and furnishing him with a similar piece, or by sending some expert person to slip it on the floor. In this last case it is discovered on the ground, and you persuade the person that it fell from his foot, as he took it out of his shoe.

The little Sportsman.

This is a figure which holds a bow with an arrow, which shoots it at the instant required, and hits a paper placed opposite on the top of a pedestal. This paper is divided into several squares, which are numbered, and the arrow always flies and hits in the number chosen by one of the company.

The action of the spring which impels it, is restrained by a little pin, which the confederate lets go at pleasure, by moving the levers hid in the table ; when you push this pin, the arrow flies with rapidity to the paper, like the operation of a musket lock when you pull the trigger. In placing the automaton on the table, it must be in such a manner that the arrow be directed to one of the circles numbered on the paper.

To cause that number to be chosen against which the arrow is pointed, you must present to the spectator cards numbered, and dexterously make him chuse the number required, which depends on

on a peculiar address, that it is scarcely possible to describe it by words; yet in general it may be said to come under one of the following heads: Firstly, to put at the bottom the card to be chosen. Secondly, to keep it always in the same place, although you mix, or pretend to mix the cards. Thirdly, to pass the card to the middle when you present the pack. Fourthly, to pass many cards before the hands of the spectator, to persuade him that he may chuse indifferently. Fifthly, to pass the same cards with such rapidity, that he cannot take any but the card intended. Sixthly, to slip complaisantly into his hand the card you wish to be taken, at the very moment when, the better to deceive him, you pray him most graciously to take which card he chuses.

The Chest that opens at command.

Within this chest there is a small figure of Mahomet, in the body of which is a spring made of brass wire, twisted in a spiral form. By this means the little figure, though higher than the chest, can, by the accommodation of the spring, be contained within when it is shut, as the spring in the body closes and shortens. The chest is placed on levers concealed on the table, which communicate their motion, by the assistance of the confederate, to the bolt of the lock; as soon as the staple is disengaged, the spring in the body of the figure finding no resistance but the weight of the lid, forces it open.

The Watch beat to pieces in a Mortar.

A watch is borrowed from one of the company, which, being put into a mortar, shortly after another person is requested to beat it to pieces with a

pestle. The guts are then shewn to the company entirely bruised : in a few minutes the watch is returned entire to its owner, who acknowledges it to be his property.

The mortar must be placed near a concerted trap, and must be covered with a napkin, in order that the assisting party may substitute another watch unperceived by the spectators. You must provide yourself with a watch resembling the first in its size, &c. which will not be very difficult, as you may either be furnished with a watch by a person with whom the matter is preconcerted, or by addressing yourself to some one whose watch you have before observed and procured yourself one like it.

After having replaced all the pieces in the mortar, you must cover them a second time with a napkin, and whilst you amuse the company with some trick or story, you afford time to your confederate to take the bruised pieces, and replace the first watch in the mortar.

To shoot a bird flying, with a gun loaded with powder, and bring it to life again.

Put into your piece the usual charge of powder, but instead of shot put half a charge of quicksilver. Prime and shoot ; if your piece bears never so little near the bird, it will find itself stunned and benumbed to such a degree as to fall to the ground in a fit. As it will regain its senses in a few minutes, you may make use of the time by saying that you are going to bring it to life again. This will greatly astonish the company : the ladies naturally will interest themselves in favour of the bird, and intercede for its liberty ; and your sympathy with their feelings for the little prisoner, may

may be the means of some of them sympathising with yours.

The resurrection of the dead bird.

Present to the company two eggs, to chuse one of them. On breaking the one chosen a Canary-bird is discovered alive: a lady in the company is requested to take it into her hands, and shortly after the bird dies. You take it again for a moment to put it into a glass on the table;—in a few minutes you take up the glass, and the bird flies off.

You must empty two eggs, and take half of the shell of each, and adjust the two halves together, by the assistance of a small bit of paper, which you glue in the form of a zone or equator. Being so arranged they represent an egg, and are capable of holding a Canary-bird, providing you make a small pin-hole to supply the bird with air. When you deliver the bird to the person who is to hold it, you kill it by the pressure of your thumb and fore-finger; you afterwards put it under a glass which covers a trap, and your confederate substitutes a living bird in the place of the dead one.

To shew the hen and egg-bag, and to bring 100 eggs out of an empty bag, and a live hen.

Make a double bag of primed linen or calico. At the mouth of the bag, on the side next you, make four or five little purses, in which put two or three eggs in a purse, and so proceed till you have filled that side next you. At one end of your bag have a hole, that no more than two or three eggs come out at once. You must likewise have another bag exactly like the other, into which put

a hen, and hang it on a hook on the side where you stand. Then thus proceed :

Take the egg-bag and put both your hands into it ; then turn it inside out, to let the company see that there is nothing in it, and in turning it again you must slip some of the eggs out of the purses, as many as you think fit, and then turn your bag again, and shew the company it is empty, and in turning it again you command more eggs to come out ; when all are out but one, you must take that egg and shew it ; then drop down your egg-bag, take up your hen-bag, and so shake out your hen, pigeon, or any other fowl.

Of conveying money out of one hand into the other.

This is a piece of entertainment not much inferior to the balls, and is more simple in the performance. The best piece to play with is a six-pence, which you are to hold in the palm of your hand or if a smaller piece, between your fingers, almost at the end of them. First hold open your right hand, and lay the piece upon it, and lay upon that the top of your long left finger, using words of incantation, and on a sudden slip your right hand from the finger holding down the money, drawing your right hand through your left, by which it will seem that you had left the money there, especially when in due time you shut your left hand, which, that it may more plainly appear to be really done, you may take a knife and appear to knock against it, so as it may make a great sound.

To make a teaster leap out of a pot, or to run a long upon the table.

The method of performing this trick is thus ; tie a long hair of a woman's head to the piece, per-

perforated with a Spanish needle near the rim; then holding the hair in your hand cast it into the pot, and so, after using certain words of enchantment, for which you must never be at a loss, draw out the teaster, and cause it to move quick or slow at the motion of your hand round the table.

These tricks are always most successfully played by candle-light, and by the aid of a confederate.

To put a piece of money into the hands of one of the company, and another similar piece into your own, and with words convey them both into the person's hands.

Take two sixpenny pieces evenly set together, and put the same instead of one into a stranger's hand, and then making as though you put one into your own left hand, with words you shall make it appear that you convey the piece in your own hand into his; for when you open your's there will be nothing seen, and he opening his will discover two, where he thought there was but one.

How to walk on an hot iron bar, without any danger of burning or scalding.

Take half an ounce of camphire, dissolve it in two ounces of aqua-vitæ, add to it one of quicksilver, one ounce of liquid storax which is the dropings of myrrh, and hinders the camphire from firing; take also two ounces of hematis, which is a red stone to be had at the druggist's; and when you buy it let them beat it to powder in their great mortar, for being very hard it cannot well be beat in a small one; put this to the above-mentioned composition, and when you intend to walk on the bar,

bar, anoint well your feet with it, and you may walk over without danger or the least inconvenience.

C H A P. I X.

ASTROLOGICAL CALCULATION BY DRYDEN, AND OTHER AMUSEMENTS.

DRYDEN, the celebrated poet of the 17th century, was remarkably fond of judicial astrology, and even ventured to calculate the nativities of his own children. When his lady was in labour with his son Charles, he being told that it was decent to withdraw, laid his watch upon the table, begging one of the ladies then present, in a most solemn manner, to take exact notice of the very minute that the child was born, which she did, and acquainted him with it.

About a week after, when his lady was pretty well recovered, Mr. Dryden took occasion to tell her that he had been calculating the child's nativity ; and observed with grief, that he was born in an evil hour ; for Jupiter, Venus, and the Sun, were all under the Earth, and the lord of the ascendant afflicted with a hateful square of Mars and Saturn. " If he lives to arrive at the 8th year," said he, " he will go near to die a violent death, on his very birth-day ; but if he should escape, of which I see but very small hopes, he will, in the 23^d year, be under the very same evil direction ; and if he should escape that also, the 33^d and 34th year is dread—" Here he was interrupted by the immoderate grief of his wife, who could no longer hear calamity prophesied to befall her son. The time

time at last came, and August was the inauspicious month, in which young Dryden was to enter into the 8th year of his age. The court being in progress and Mr. Dryden at leisure, he was invited to the country seat of the Earl of Berkshire, his brother-in-law, to keep the long vacation with him at Charleton in Wiltshire; his lady was invited to her uncle Mordaunt's to pass the remainder of the summer. When they came to divide the children, Lady Elizabeth would have him take John, and suffer her to take Charles; but Mr. Dryden was too absolute, and they parted in anger, he took Charles with him, and she was obliged to take John.

When the fatal day came, the anxiety of the lady's spirits occasioned such an effervescence of blood, as threw her into so violent a fever that her life was despaired of, till a letter came from Mr. Dryden, reproving her for her womanish credulity, and assuring her that the child was well: which recovered her spirits, and in six weeks after she received an eclaircissement of the whole affair.

Mr. Dryden, either from a fear of being reckoned superstitious, or thinking it a science beneath his study, was extremely cautious of letting any body know that he was a dealer in astrology; therefore could not excuse his absence, on his son's anniversary, from a general hunting-match, which Lord Berkshire had made, to which all the neighbouring gentlemen were invited. When he went out, he took care to set the boy a double exercise in the Latin tongue, which he himself taught his children, with a strict charge not to stir out of the room till his return; well knowing the task would take up much longer time.

Charles was performing his duty, in obedience

to

to his father; but as ill fate would have it, the stag made towards the house, and the noise alarming the servants, they hastened out to see the sport.

One of them took young Dryden by the hand, and led him out to see it also; when, just as they came to the gate, the stag, being at bay with the dogs made a bold push and leaped over the court wall, which was very low and very old, and the dogs following, threw down part of the wall, ten yards in length, under which Charles Dryden lay buried.

He was immediately dug out, and after six weeks languishing in a dangerous way, he recovered. So far was Dryden's prediction fulfilled.

In the 23d year of his age, Charles fell from the top of an old tower belonging to the Vatican at Rome, occasioned by a swimming in his head with which he was seized, the heat of the day being excessive. He again recovered, but was ever after in a languishing sickly state.

In the 33d year of his age, being returned to England, he was unhappily drowned at Windsor. He had, with another gentleman, swam twice over the Thames, but returning a third time, it was supposed he was taken with the cramp; because he called out for help though too late.— Thus the father's calculation proved but too prophetical.

Th: Handkerchief, marked, cut, torn, and mended.

Two of the company are requested to come forward on the stage, and a handkerchief is given to them, which they are to hold by the four corners; afterwards many other handkerchiefs are asked for from the company, and as they are gathered they are put into the first to make a bundle. When a dozen have been heaped, the two persons who hold the

the bundle, cause a third person to take one out by chance, who is desired carefully to examine the marks, &c. and to cut off the corners with a pair of scissars; other persons, if they chuse, may also cut off pieces. After this, the handkerchief is entirely torn to pieces—all the shreds are to be collected; which, after being sprinkled with some drug are folded up and tied tight with a ribbon, to pres them into a small compass; they are put under a glass, which is warmed by rubbing with your hand;—in a few minutes the handkerchief is taken from under the glass and unfolded; the company recognize the marks, and the astonished spectators cannot perceive a rent in the handkerchief.

This operation is performed upon a very simple principle:—One of the company is in the confederacy, who having had two handkerchiefs exactly alike, gave one to the confederate who is hid behind the scene, and throws the other on the stage to be used in the performance. Care is taken to put this handkerchief on the top of the heap, although they are apparently mixed by chance. The person to whom you address yourself to take one at random, naturally takes the uppermost, and if you perceive that another is taken, you desire them to mix them well, in order to compleat the trick, and under pretence of settling them, you again change the position of the confederate handkerchief, and hand the bundle to some other of the company, whose countenance indicates less suspicion, who puts his hand to the bundle and good-naturedly takes out the first. When the handkerchief has been torn and well-folded, it is put under a glass on a table which joins to a pavilion. On the spot of the table where it is placed, there is a small trap which opens to let it fall into a drawer: the confederate hid behind the

the scene passes his hand into the table to substitute the second instead of the first handkerchief; he then shuts the trap, which so nicely fits the space it has opened, as to appear one uninterrupted surface, and capable of deceiving the eye of the most acute in company.

To make one penknife out of three jump out of a goblet, agreeable to the option of the company.

Take a silver goblet, as on account of its opacity it will hide the means you take to make the penknife jump out at the desire of the company.

This operation consists in a small spring, about an inch broad, by two inches and a quarter long. You are to take care to subject or bend this spring, with a little bit of sugar, which, being compressed between the ends of the spring, will prevent it from unbending. Then shewing your three penknives of different colours, ask the company which of them they chuse to see jump out of the goblet. Put afterwards your three knives in the goblet, taking care to lay the end of that chosen in a little round hold that is in the upper end of the spring confined by the bit of sugar, and before you withdraw your hand from the goblet, which must contain some drops of water at the bottom, take a little of it with the tip of your finger and put it dexterously on the sugar, which, by melting will leave the spring at liberty to extend, and cause the penknife to jump out.

Whilst the sugar is melting, you may stand far from the goblet, and command the pen-knife to jump out, and this will be done to the great astonishment of the company.

We might now proceed to *Electricity*, one of the most wonderful discoveries of human nature; and to

to demonstrate its great utility to the world, and record a number of wonderful cures performed by its operation upon the human system.—This also may be employed in playing tricks, and yield no small diversion to a numerous assembly. However, the operator of the electrical machine should use proper caution and circumspection, as the shocks when over-violent have sometimes been attended with serious consequences:—which the following little anecdote will amply evince.

Old Mrs. Cole, of Bandy-leg walk, being most cruelly afflicted with the rheumatism, the relic of her youthful disorder, waited upon a certain electrical operator in Westminster, famous for his performance in that line. “Can you bear a pretty hard shock, Madam?” said the professor.—“O yes, Sir,” replied the lady, “as hard as you please; I am mightily fond of being *shocked*.” The operator by this reply supposed the lady to be no stranger to the business, and therefore ventured to wind up his machine to an unusual elevation. But mark the consequence—the violent shock overset the patient, and precipitated her through the floor into an ox-cheek shop, kept by Mother Kilpatrick. In her fall she overset a large pan of delicious viands, which spread all their savory effluvia on the waiting, amazed company; some of whom imagined that the devil with the witch of Endor were come to partake of the wholesome, though humble fare of the cellar. The old lady appeared as bald as Sir Sam House used to be at an election; for her false wig, and high head-dress were cast into a cauldron of boiling hot pease-soup—“Arrah! by my soul”—exclaimed Paddy O’Connelly, rising from the table....“by my salvation there is death in the potatoe pot!” So saying, Mrs. Kilpatrick, the culinary dame, ran in a great rage with

with the flesh-fork in her hand, and drawing out the head-dress, cried out—"Howl! O honey, I have nailed Old Nick upon the flesh-fork!" then clapping it upon O'Connelly's plate, vociferated—"There, O honey, is a devilish sweet morsal for your supper!"

By this time the doctor was arrived to the assistance of his patient, whom he found so well recovered as to run to O'Connelly's plate and snatch her wig and head-dress, which, regardless of their changed aspect, she replaced on her head. The cook now demanded satisfaction for her loss; but the doctor declared that sooner than pay a farthing he would electrify the whole house about their ears. At length Mrs. Cole, now perfectly cured of her disorder, adjusted the matter, by paying for the ox-cheek and pease-soup and treating the company into the bargain.

Several other branches of science might here also be introduced, in order to instruct and amuse the reader, but as we have already completely filled up the space which we proposed, we shall conclude our *Book of Knowledge*, conscious of its being the best Key ever presented to the Public to unfold the *Mysteries of Conjuration*; as being equal in point of utility and entertainment.

THE END.

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